

Category, Priority and Referral	Category PREGNANT WOMEN BREASTFEEDING WOMEN NON-BREASTFEEDING WOMEN INFANTS CHILDREN	Priority	Referral RD if Hct ≤ 31.0, Hb ≤ 10.0, or no rise on recheck
		1	
		1	
		6	
		1	
		3	
Definition	Hemoglobin or hematocrit concentration below 95 percent confidence interval (i.e., below the .025 percentile) for healthy, well-nourished individuals of the same age, sex, and stage of pregnancy.		
	Cut-off values are provided in the attached Tables for each clinic site (with adjustments for smoking and altitude), based on the levels established by the Centers for Disease Control and Prevention (CDC).		
Required Documentation	ALL: Hematocrit or Hemoglobin value and date, clinic altitude (tables) INFANTS/CHILDREN: DOB PREGNANT: Weeks gestation WOMEN: Smoking status		
Justification	Hemoglobin (Hb) and hematocrit (Hct) are the most commonly used tests to screen for iron deficiency anemia. Measurements of Hb and Hct reflect the amount of functional iron in the body. Changes in Hb concentration and Hct occur at the late stages of iron deficiency. While neither an Hb or Hct test are direct measures of iron status and do not distinguish among different types of anemia, these tests are useful indicators of iron deficiency anemia.		
	Iron deficiency is by far the most common cause of anemia in children and women of childbearing age. It may be caused by a diet low in iron, insufficient assimilation of iron from the diet, increased iron requirements due to growth or pregnancy, or blood loss. Anemia can impair energy metabolism, temperature regulation, immune function, and work performance. Anemia during pregnancy may increase the risk of prematurity, poor maternal weight gain, low birth weight, and infant mortality. In infants and children, even mild anemia may delay mental and motor development. The risk increases with the duration and severity of anemia, and early damages are unlikely to be reversed through later therapy.		
Clarification	<ol style="list-style-type: none"> Basis for bloodwork assessment: For pregnant women being assessed for iron deficiency anemia, bloodwork must be evaluated using trimester values established by CDC. Thus, the blood test result for a pregnant woman would be assessed based on the trimester in which her bloodwork was taken. Definition of Trimester: CDC defines a trimester as a term of three months in the prenatal gestation period with the specific trimesters defined as follows in weeks: 		
	First Trimester: 0-13 weeks		

Second Trimester: 14-26 weeks
Third Trimester: 27-40 weeks.

3. **Adjustments for smoking:** A State agency may elect to use only one cutoff for all smokers rather than making specific adjustments based on the individual applicant's smoking frequency. If the State chooses to use only one category for this issue, the "up to < 1 pack/day" cutoff values category as shown on Tables 201-A and 201-B is the only one that may be used.

Further, CDC begins the calculation of weeks starting with the first day of the last menstrual period. If that date is not available, CDC estimates that date from the estimated date of confinement (EDC). This definition is used in interpreting CDC's Prenatal Nutrition Surveillance System data, comprised primarily of data on pregnant women participating in the WIC Program.

References

1. Centers for Disease Control and Prevention. Criteria for anemia in children and childbearing-aged women. MMWR 1998;47: RR-3.
2. Centers for Disease Control and Prevention. Prenatal Nutrition Surveillance System User's Manual. Atlanta: CDC, 1994.
3. Institute of Medicine. Iron deficiency anemia: recommended guidelines for the prevention, detection, and management among U.S. children and women of childbearing age. National Academy Press, Washington, D.C.; 1993.
4. Institute of Medicine. Nutrition during pregnancy. National Academy Press, Washington, D.C.; 1990.
5. Institute of Medicine. WIC nutrition risk criteria a scientific assessment. National Academy Press, Washington, D.C.; 1996.

